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Remarks

Claims 1-54 are currently pending in the application. Applicants acknowledge with thanks the Examiner's determination of allowable subject matter in claims 18-21 and 45-48. By this amendment, claims 1, 7, 13-16, 25-28, 34, 40-43, and 52-54 are canceled; claims 2-6, 8-12, 17-24, 29-33, 35, 37-39, 44-47, 49, and 50 are amended in response to the Office Action and to correct informalities not identified in the Office Action; and new claims 55-68 are added. Claim 55 essentially corresponds to canceled claim 1 in combination with the concept from canceled claim 7; claim 56 essentially corresponds to canceled claim 1 in combination with the concept from canceled claim 25; claim 62 essentially corresponds to canceled claim 28 in combination with the concept from canceled claim 34; and claim 63 essentially corresponds to canceled claim 28 in combination with the concept from canceled claim 52. It is respectfully submitted that no new matter is added to the application by these amendments. Reconsideration and reexamination is respectfully requested.

Claim Rejections - 35 USC § 112

Claims 6, 22-24, 33, and 49-51 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The rejection is respectfully traversed.

The Examiner stated in the Office action that the operation of the bias adjuster and the spring together is not understood and that it appears that the bias adjuster 68 determines a fixed position of the arm 60, which would not permit the spring 66 to have any affect on the arm's position. On the contrary, the Applicant asserts that the spring 66 does affect the position of the arm 60 when used in conjunction with the bias adjuster 68. When the bias adjuster 68 is positioned such that it does not contact the arm 60 when the descending counterweight 32 deflects the arm 60, the counterweight 32 must apply a force to the arm 60 sufficient to overcome the bias imparted to the arm 60 by the spring 66. However, when the bias adjuster 68 is positioned such that the arm 60 does contact the bias adjuster 68 as the counterweight 32 descends, the arm 60 deflects away from the counterweight 32 against the bias of the spring 66 until the arm 60 contacts the bias adjuster 68. When the arm 60 contacts the bias adjuster 68, the arm 60 deflects at the point of contact with the bias adjuster 68, and the second end 64 of the arm

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60 continues to deflect away from the counterweight 32 against the bias of the spring 66. Thus, the counterweight 32 must apply a force to arm 60 sufficient to overcome the initial bias imparted to the arm 60 by the spring 66, to deflect the arm 60 at the point of contact with the bias adjuster 68, and to overcome the bias imparted to the second end 64 of the arm 60 after contact of the arm 60 with the bias adjuster 68. It is apparent that the force applied by the counterweight 32 to the arm 60 differs in these two scenarios and that the spring 66 does affect the position of the arm 60 in both scenarios.

The Examiner asserts that the "complex pulley" has not been adequately disclosed. Complex pulleys are well-known mechanical assemblies comprising multiple pulleys and possibly multiple cables for transferring force from one object to another. One skilled in the sliding door art can easily refer to a reference book or other publications, such as U.S. Patent No. 4,003,102 to Hawks et al., which discloses a sliding panel closer comprising a complex pulley system, to identify a complex pulley system for replacement of the pulley 30 of the automatic closure system of the present application. The Examiner even utilizes the Hawks patent as a reference for an anticipation rejection of claims that describe the pulley as a complex pulley system, thereby effectively admitting that one skilled in the art would be able to substitute the complex pulley for the pulley 30 of the automatic closure system.

Additionally, the Examiner contends that the cable brake of Figs. 10 and 11 is not understood, particularly how the brake is supported, supported for reciprocal movement, and maintained in position. The Applicant respectfully directs the Examiner to paragraphs 57 and 58, which describe the cable brake 50 and state that the cable brake 50 comprises a tab 52 for selectively obstructing movement of the cable 28 through an opening of the cover 34, and the tab 52 is slidably mounted to the cover 34 via a flange 54. The flange 54 can be slidably mounted to the cover 34 by any one of several known mechanical structures for slidably mounting one object to another. For example, the flange 54 can be mounted to the cover 34 through slots, rails, and the like. Further, the cable brake 50 can be maintained in the position where the tab 52 of the cable brake 50 prevents movement of the cable 32 in any logical manner; the frictional force between the cable brake 50 and the cable 32 can even keep the cable brake 50 in position. The

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particular manner in which the cable brake 50 is slidably mounted to the cover 34 and maintained in position is not critical to the invention.

Claims 1-12 and 17-25 are rejected under U.S.C 112, second paragraph, as being indefinite. The rejection is respectfully traversed.

Claim 55 essentially replaces claim 1 and 7 and recites "A door assembly" in the preamble and includes "a door" in the body of the claim. The claims depending from claim 55 (formerly depending from claim 1) have been amended to also recite "A door assembly." Thus, the rejection is overcome by these amendments.

Objections to the Drawings

The Examiner has objected to the drawings as allegedly failing to show every feature of the invention specified in the claims. Specifically, the reference in claims 6 and 33 to a complex pulley system must be shown in a drawing. This objection is respectfully traversed.

Applicants refer to the above discussion for the "complex pulley" and assert that one skilled in the sliding door art would have knowledge of a complex pulley system and could refer to a commonly known reference book or prior art patents, such as the Hawks patent, to identify a particular complex pulley system to replace the pulley 30 shown in the drawings. Therefore, Applicant requests that the objection to the drawings be withdrawn.

Claim Rejections - 35 USC § 102

Claims 1-3, 5-8, 10-12, 17, 25, 28-30, 32-35, 37-39, 44, and 52 are rejected under 35 U.S.C. 102(b) as being anticipated by Hawks. The rejection is respectfully traversed.

For Hawks to anticipate these claims, each and every limitation in the claims must be found in Hawks. Since such is not the case, the anticipation rejection must fail.

The rejection of claims 1 and 7 will be addressed with respect to claim 55. Claim 55 is directed to a door assembly comprising a door frame with a door jamb, a door slidable in the door frame, and an automatic closure system comprising a cable with first and second ends, a counterweight connected at the second end of the cable, a pulley, and a cover mounted on the door jamb to visually conceal the pulley, the second end of the cable, and the counterweight.

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Hawks discloses a sliding panel 3 comprising an automatic closing system having a cable 32, a pulley assembly 50, and a gravity motor 4 (embodiment of Figs. 3-5) with a weight 14 that automatically closes the panel 3. The gravity motor 4 includes a piston 7 connected to the weight 14 by a cable 61, and the piston 7 works in concert with a check valve 9 to control release of compressed air and thereby slow the closing of the panel 3. The pulley assembly 50, the weight 14, the piston 7, the check valve 9, and a portion of the cable 32 are mounted inside a pneumatic cylinder 5 that can be mounted, as shown in Fig. 2, "in the wall behind the doorjamb 41." (col. 3, line 44) Additionally, "an access plate should be provided for maintenance and replacement," (col. 3, lines 44-45) and, as seen in Fig. 3, the access plate is mounted to the wall to access the interior of the wall. The cover of claim 55 is mounted on the door jamb exteriorly of the wall to visually conceal components of the automatic closure system located between the door jamb and the cover. Hawks does not disclose such a cover, as required by claim 55; therefore, claim 55 is patentable over Hawks.

Claims 2 is allowable over Hawks based on its direct dependency from claim 55.

Claim 3 specifies that the sliding door is a screen door. Hawks discloses a movable panel, which can be a door or a window, and does not disclose that the door is a screen door. Thus, Hawks does not anticipate claim 3. Further, claim 3 is allowable over Hawks based on its direct dependency from claim 55.

Claims 5, 6, and 8 are patentable over Hawks based on their direct or indirect dependency from claim 55.

Claim 10 adds an opening to cover to permit the cable to pass through the cover. Fig. 2 of Hawks shows an opening in the door jamb for the cable to access the interior of the wall; however, Hawks does not disclose a cover mounted to the door jamb and, therefore, does not disclose an opening in a cover mounted to the door jamb for the cable. Thus, claim 10 is independently patentable over Hawks in addition to being patentable over Hawks based on its direct dependency from claim 55.

Claim 11 specifies that the cover has an elongated shape so that the cover has an appearance similar to and blends in with the door jamb. As discussed above, Hawks does not disclose a cover mounted to the door jamb; therefore, Hawks does not disclose a cover mounted

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to the door jamb and having the characteristics cited in claim 11. Further, even if the pneumatic cylinder is deemed to be a cover, it is not mounted to the door jamb and does not blend in with the door jamb. It therefore follows that claim 11 is allowable over Hawks independently and based on its direct dependency from claim 55.

Claim 12 is patentable over Hawks based on its direct dependency from claim 55.

Claim 17 calls for the adjuster to be mounted to one of the door jamb and the cover. The adjuster of Hawks is in the form of the gravity motor that controls the release of pneumatically compressed air to control movement of the weight. The gravity motor is located inside the pneumatic cylinder, which is disclosed as being mounted to the panel or in the wall behind the door jamb. Hawks does not disclose the mounting of the gravity motor to the door jamb, much less to a cover mounted to the door jamb because Hawks does not disclose a cover mounted to the door jamb. Thus, claim 17 is independently patentable over Hawks in addition to being patentable over Hawks based on its dependency from claim 55.

The rejection of claim 25 will be addressed with respect to claim 56. Claim 56 is directed to a door assembly comprising a door frame, a door slidable in the door frame, and an automatic closure system comprising a cable, a counterweight connected to the cable, a pulley, and a damper that selectively applies a drag force on at least one of the pulley, the cable, and the counterweight to control the travel of the sliding door when moving to the closed position. In Hawks, the closing speed of the panel is determined by a controlled release of pneumatically compressed air through the piston assembly that is positioned between the cable/pulley assembly and the weight. The controlled release of air determines the speed at which the piston assembly moves within the pneumatic cylinder and does not constitute a direct application of a drag force to at least one of the pulley, the cable, and the counterweight, as required by claim 56, which is therefore allowable over Hawks.

The rejection of claims 28 and 34 will be addressed with respect to new claim 62. The remarks presented above with respect to the rejection of claims 1 and 7 (new claim 55) apply to claim 62. Claim 62 is directed to a kit for adapting a sliding door mounted within a door frame, and the kit includes a cover adapted to be mounted on the door jamb to visually conceal the pulley, the second end of the cable, and the counterweight. Advantageously, the kit can be used

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with an existing door assembly, whereby the cover conceals the pulley, the second end of the cable, and the counterweight without having to create a hole or opening in the wall behind the door jamb, as shown in Fig. 2 of Hawks. As stated above, Hawks does not disclose a cover mounted on the door jamb to visually conceal the pulley, the second end of the cable, and the counterweight. Because Hawks does not disclose the cover as recited by claim 62, claim 62 is allowable over Hawks.

The arguments presented above with respect to claims 2, 3, 5, 6, 8, 10-12, and 17 apply to claims 29, 30, 32, 33, 35, 37-39, and 44 and are not reproduced here for brevity. It therefore follows that claims 29, 30, 32, 33, 35, 37-39, and 44 are allowable over Hawks.

The rejection of claim 52 will be addressed with respect to new claim 63. The remarks presented above with respect to the rejection of claims 1 and 25 (new claim 56) apply to claim 63 and are not reproduced here for brevity. Thus, claim 63 is allowable over Hawks.

Claims 1-3, 5, 6, 12, 28-30, 32, 33, and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Application Publication No. 2001/0054260 to Plum et al. The rejection is respectfully traversed.

The rejection of claim 1 will be addressed with respect to claim 55. Claim 55 is directed to a door assembly comprising a door frame with a door jamb, a door slidable in the door frame, and an automatic closure system comprising a cable with first and second ends, a counterweight connected at the second end of the cable, a pulley, and a cover mounted on the door jamb to visually conceal the pulley, the second end of the cable, and the counterweight.

Plum discloses a door-closing mechanism 10 comprising a line 12 mounted to an eyelet 14 on a door 1 at one end and to a hanging weight 16 at the opposite end. The hanging weight 16 comprises a plurality of lead weights that are selectively attachable to the line 12, and the amount of weight can be adjusted to a force sufficient to close the door 1. The line 12 extends from the eyelet 14 and into a protecting tube 20 and runs over a pulley 18 located in the tube 20. The protecting tube 20 can be "attachable adjacent the closed side of the sliding door (paragraph 5)," supported "on a wall (paragraph 16)," or secured "in the wall adjacent the enclosed side of the sliding door (paragraph 16)." Plum does not disclose, in the specification or in the figures, mounting the tube 20 to a door jamb; rather, Plum states in vague terms that the tube 20 can be

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mounted adjacent a closed side of the door 1 and on or in a wall. Plum refers to Fig. 1 for an example of mounting the tube 20 in a wall adjacent the closed side of the sliding door, but Fig. 1 does not illustrate any structure in which the tube 20 is mounted. Fig. 3 illustrates a wall-like structure to which the tube 20 is mounted, but the location or the type of structure is not identified. In fact, it would be undesirable to mount the disclosed tube 20 to the door jamb. As shown in Figs. 1 and 2 of Plum, the tube 20 has a height shorter than the height of the door 1; therefore, a gap would be present either above or below the tube 20 and between the door 1 and the door jamb. The gap would provide an entry for insects and small animals and allow heated or air conditioned air to escape from the building. Plum does not disclose a cover mounted to the door jamb as cited in claim 55, which is therefore allowable over Plum.

Claims 2, 3, and 5 are patentable over Plum based on their direct dependency from claim 55.

Claim 6 specifies that the pulley is a complex pulley system, and Plum does not disclose any type of complex pulley system. Plum only discloses a single wheel pulley. Thus, claim 6 is independently allowable over Plum in addition to being allowable over Plum based on its direct dependency from claim 55.

Claim 12 adds an adjuster to control movement of the counterweight between the counterweight open and counterweight closed positions. In Plum, the hanging weight comprises "a plurality of weight components...selectively attachable to a second end of the connecting line according to a weight of the sliding door. The amount of weight can be readily adjusted to a force sufficient to close the screen (paragraph 17)." Thus, Plum discusses adjusting the total weight of the hanging weight so that the weight is sufficient to close the door according to the weight of the door. Plum does not mention an adjuster for controlling the movement of the weight (i.e., slowing the descent of the weight from a speed the weight would achieve without the presence of the adjuster) while closing the door. The descent speed of the Plum hanging weight is determined by the number of weights attached to the cable and the weight of the door, and Plum does not disclose any type of adjuster for changing the descent speed established by these elements. Because Plum does not disclose an adjuster as cited in claim 12, claim 12 is

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independently patentable over Plum and patentable over Plum based on its direct dependency from claim 55.

The rejection of claim 28 will be addressed with respect to claim 62. The remarks presented above with respect to the rejection of claim 1 (new claim 55) apply to claim 62. Claim 62 is directed to a kit for adapting a sliding door mounted within a door frame, and the kit includes a cover adapted to be mounted on the door jamb to visually conceal the pulley, the second end of the cable, and the counterweight. As stated above, Plum does not disclose a cover mounted on the door jamb to visually conceal the pulley, the second end of the cable, and the counterweight; therefore, claim 62 is allowable over Plum.

The arguments presented above with respect to claims 2, 3, 5, 6, and 12 apply to claims 29, 30, 32, 33, and 39 and are not reproduced here for brevity. It therefore follows that claims 29, 30, 32, 33, and 39 are allowable over Plum.

Claim Rejections - 35 USC § 103

Claims 4 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawks or Plum. The rejection is respectfully traversed.

Claim 4 depends directly from claim 55, and claim 31 depends directly from claim 62. By definition, claim 4 includes all the limitations of claim 55, and, similarly, claim 31 includes all the limitations from claim 62. As discussed above, Applicants assert that claims 55 and 62 are not anticipated by Hawks or Plum; Applicants also maintain that claims 55 and 62, which both include the limitation of a cover mounted on or adapted to be mounted on the door jamb to visually conceal the pulley, the second end of the cable, and the counterweight, are not obvious in view of Hawks or Plum.

In Hawks, the pneumatic cylinder is said to be mounted to the sliding panel or in the wall behind the door jamb. It would not have been obvious to one skilled in the sliding door art to mount the pneumatic cylinder, if the pneumatic cylinder is considered to be a cover, to the door jamb as the disclosed pneumatic cylinder would interfere with the closing of the sliding panel. The cylinder has a curved surface that would prevent formation of a good seal between the sliding panel and the cylinder if it was mounted to the door jamb. Further, Hawks does not provide any teaching, suggestion, or motivation to mount the cylinder in a location other than the

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two locations shown in Figs. 1 (on the sliding panel) and 2 (in the wall) of Hawks. Thus, claim 55 is not obvious in view of Hawks and is patentable over Hawks, and claim 4 is patentable over Hawks based on its direct dependency from claim 55.

Plum lists the following locations for the mounting of the tube: adjacent the closed side of the sliding door, on a wall, or in the wall adjacent the enclosed side of the sliding door. Further, the figures of Plum offer no illustration or mention of a door jamb or even a door frame to which the tube can be mounted. As with Hawks, it would not have been obvious to one skilled in the sliding door art to mount the pneumatic cylinder to the door jamb as the disclosed pneumatic cylinder would interfere with the closing of the sliding panel. Mounting the tube to the door jamb would create a gap between the door and the door jamb, as described previously, and would provide an insufficient seal between the door and the tube due to the cylindrical shape of the tube. Plum does not provide any teaching, suggestion, or motivation for mounting the tube to the door jamb or in any other location not disclosed in the specification. It therefore follows that claim 62 is not obvious in view of Plum and is patentable over Plum, and claim 31 is patentable over Hawks based on its direct dependency from claim 62.

Claims 9 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawks in view of Plum. The rejection is respectfully traversed.

Claim 9 depends from claim 55 through claim 8, and claim 36 depends from claim 62 through claim 36. By definition, claim 9 includes all the limitations of claims 55 and 8, and, similarly, claim 36 includes all the limitations of claims 62 and 35. Applicant asserted above that claims 55 and 8 and claims 62 and 35 are not anticipated by Hawks; Applicant also maintains that these claims are not obvious over Hawks in view of Plum. Assuming that the asserted combination is tenable, the combination fails to meet the invention disclosed in claims 9 and 36 because the combination is lacking a necessary element of the claimed invention. Claims 9 and 36 require a cover mounted to or adapted to be mounted on the door jamb to visually conceal the pulley, the second end of the cable, and the counterweight.

The alleged combination of Hawks and Plum would result in (1) the pneumatic cylinder of Hawks mounted adjacent the closed side of the sliding door, on a wall, or in the wall adjacent the enclosed side of the sliding door or (2) replacing the pneumatic cylinder of Hawks mounted

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in the wall adjacent the door jamb and behind an access panel with the tube of Plum. Neither of these combinations results in a cover mounted on the door jamb to visually conceal the pulley, the second end of the cable, and the counterweight, as required by claims 55 and 62. Thus, claims 55 and 62 are patentable over the alleged combination, and claims 9 and 36 are patentable over the alleged combination based on their dependency from claims 55 and 62, respectively.

Claims 7-11 and 34-38 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Plum in view of Hawks. The rejection is respectfully traversed.

The rejection of claim 7 will be addressed with respect to claim 55. The Examiner stated in the Office action that Plum does not hide his weight system in the door jamb and that Hawks does teach such a feature. Applicant respectfully disagrees with the statement that Hawks hides his weight system in the door jamb; rather, Hawks locates his weight system in the wall *behind* the door jamb. Further, the weight system of the present invention is not hid *in* the door jamb – it is hid *between* the door jamb and the cover. Regardless, a combination of Plum and Hawks as suggested by the Examiner would result in the tube and weight system of Plum mounted in the wall behind the door jamb, and this combination does not reach the invention of claim 55. The tube mounted in the wall behind the door jamb does not constitute a cover mounted on the door jamb. Thus, claim 55 is patentable over the alleged combination.

Claims 8, 9, and 10 are allowable over the alleged combination based on their dependency from claim 55.

Claim 11 specifies that the cover has an elongated shape so that the cover has an appearance similar to and blends in with the door jamb. If the tube of the alleged combination is considered to be the cover, not only it is not mounted to the door jamb, but it is cylindrical and would not blend in with the door jamb, which has a generally flat surface. It therefore follows that claim 11 is allowable over the alleged combination independently and based on its direct dependency from claim 55.

The rejection of claim 34 will be addressed with respect to claim 62. The remarks presented above with respect to the rejection of claim 7 (new claim 55) apply to claim 62. Claim 62 is directed to a kit for adapting a sliding door mounted within a door frame, and the kit includes a cover adapted to be mounted on the door jamb to visually conceal the pulley, the

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second end of the cable, and the counterweight. As stated above, the alleged combination would comprise a tube mounted in the wall behind the door jamb, which does not constitute a cover mounted on the door jamb to visually conceal the pulley, the second end of the cable, and the counterweight; therefore, claim 62 is allowable over the alleged combination.

The arguments presented above with respect to claims 8-11 apply to claims 35-38 and are not reproduced here for brevity. It therefore follows that claims 35-38 are allowable over the alleged combination.

Applicant has added new claims 57-61 and 64-68, which distinguish over the prior art and should be allowed.

It is respectfully submitted that all of the claims in the application are allowable over the prior art of record. Early notification of allowability is respectfully requested.

The courtesy of an Advisory Action is respectfully requested.

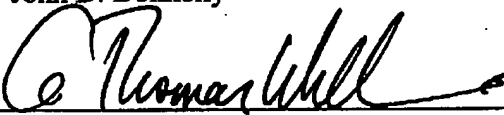
If there are any questions regarding this matter, please contact the undersigned attorney.

Respectfully submitted,

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